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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,896	03/04/2002	Seibang Oh	112690-928	6503
29176	7590	12/16/2003	EXAMINER	
BELL, BOYD & LLOYD LLC			PATEL, TULSIDAS C	
P. O. BOX 1135			ART UNIT	
CHICAGO, IL 60690-1135			PAPER NUMBER	

2839

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,896

Applicant(s)

OH, SEIBANG

Examiner

T. C. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-64 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-64 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

General Status

1. This is a Final Action on the Merits. Claims 1-6 and 8-64 are pending in the case.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 and 8-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR 2 805 662 in view of Hamill (US 5,831,814).

FR 2 805 662, in figures 1-7, discloses a fuse block comprising a body 15, a plurality of terminals 9, 12, fixed and exposed on at least one side (top side in figure 1) of the body, a fuse element 7 contacting at least two of the terminals. However, FR '662 does not disclose three pairs of terminals arranged in the body to enable a single terminal bus to supply (power) to one of the each of the terminals. Hamill in figure 4, discloses a bus bar having three projections 38, each projection can be connected to one of the side of the pair of terminals. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a strip of bus bar with projecting terminals as taught by Hamill, so that one side of the pair of terminals can be connected to the same potential.

For claims 2-3, plastic body 15 and punched fuse element 7 are disclosed. For claim 4, surface mounted fuse is already disclosed by FR '662. For claim 5, providing multiple strands for the fuse would be a matter of design choice. For claims 6 and 8, the fuse element 7 is mounted on a substrate formed by strips 5 and 6, and connects the two terminals. Figure 1 of FR '662 also discloses two set of receptacles 3a for the terminals, and the terminals are arranged in two rows. For claims 9-12 the two terminals are electrically connected and the fuse elements 7 connecting each set of terminals, is capable of having different rating (current carrying capacity) and terminals are already shown as integrally formed with the bus bar, as taught by Hamill. For claim 13-19, one of the terminals is capable of being connected to a power supply line. For claims 20-24, multiple rows of terminals are disclosed in figure 2 and terminals in one set is connected to the terminal in the other set by a fuse. For claim 25, the bus strip with a plurality of terminals is already disclosed by Hamill. For claims 26-29, a replacement fuse 20 is disclosed for the fuse element 7.

For claims 30 and 31, a junction box is disclosed in figure 2, a replacement fuse 20 is disclosed in figure 1. For claims 33-42, 44-51 a protective element 15 with an aperture 19 is disclosed in figure 1. For claim 46, a fuse block is disclosed in figure 2 and the fuse block has a plurality of fuse elements connected to the terminals. Claims 52-56, the molded block with terminals and fuse element is disclosed in figures 1 and 2. For claim 43, FR '662 discloses the claimed invention except for the terminals have female connectors and the replacement fuse has male connectors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to reverse the arrangement, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. In re Einstein,

8 USPQ 167. For claims 52-56 providing a bus bar in a strip form with multiple terminals is already discussed and a plurality of terminal sets are disclosed by FR '662. Providing multiple sets would only require duplication of parts.

For claims 57-64, a fuse block with a plurality of fuses and replacement fuses are disclosed in figures 1 and 2. The arrangement of the fuse block is capable of receiving two different ratings of fuses in two sets of terminals. For claims 63 and 64, the method steps of making connections are also clear from the figures 1 and 2 and the disclosure.

4. The prior art made of record and not relied upon is considered pertinent to applicant's invention. Detter et al. (US 5,023,752) and Jetton (US 6,322,376) disclose bus bar strip with multiple terminal projections in a plurality of rows.

Applicant also should consider these references in response to this office action. Should issue arise concerning the rejection presented above, these references may be relied upon in a subsequent action to support the lack of novelty or obviousness of claimed subject matter to one of ordinary skill in the art.

Response to Arguments

5. The applicant amended several claims and cancelled claim 7. The Examiner has presented new rejection based on combination of FR '662 and Hamill and rejected all the pending claims.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Change of Address

7. Effective May 1, 2003, the United States Patent and Trademark Office has a new Commissioner for Patents address. Correspondence in patent-related matters to organizations reporting to the Commissioner for Patents must now be addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered of responses should be brought to:

Crystal Plaza-4, Fourth floor (receptionist)
2201 South Clark Place, Arlington, Virginia

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. C. Patel whose telephone number is (703) 308-1736. The examiner can normally be reached on 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (703) 308-2710. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.



T. C. Patel
Primary Examiner
Art Unit 2839

tcp
December 04, 2003